PSS6

CLINICAL EFFECTIVENESS OF FUMARIC ACID ESTERS (FUMADERM) IN PSORIASIS: A SYSTEMATIC REVIEW OF LITERATURE

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OBJECTIVES: To review the literature evaluating the clinical efficacy of Fumaderm (FAE) in patients suffering from psoriasis and psoriatic arthritis. **METHODS:** Systematic literature search in electronic databases (MEDLINE, Cochrane and Embase) was performed (from inception to March 14,2014). Results were presented by narrative synthesis including a quality assessment using Jadad scale. **RESULTS:** Three randomized controlled trials were included (*Fallah Arani 2011, Altmeyer 1994, Peeters 1992*). Quality of studies ranged from 3 to 4 points. Observation period was 16 weeks for all studies. One open-label study comparing FAE with methotrexate (MTX) in moderate to severe chronic plaque psoriasis was identified. The primary efficacy endpoint was the difference in mean change from baseline in Psoriasis Area and Severity Index (PASI). After 12 weeks of treatment the mean PASI (± SD) decreased to 10.5 ± 6.7 compared with starting value of 18.1 ± 7.0 in patients treated with FAE and to 6.7 ± 4.5 compared to starting value of 14.5 ± 3.0 in patients treated with MTX. The absolute difference between groups (FAE vs. MTX) in the mean values was 1.4 (95%CI: 2.0; 4.7) and wasn't statistically significant (p = 0.417). In the remaining two double-blind studies the efficacy and safety of Fumaderm was assessed against the placebo. One study shows that in psoriasis vulgaris population the mean PASI in FAE group decreased from 21.53 at baseline to 10.77, whereas in placebo group mean PASI has not changed ($p<0.0001$) after 16 weeks of treatment. Moreover, the results of study in psoriatic arthritis population revealed that FAE significantly ($p<0.04$) decrease joint pain compared to placebo. **CONCLUSIONS:** The results revealed that FAE and MTX have similar clinical efficacy in the treatment of patients with moderate to severe psoriasis. Moreover, FAE is more effective than placebo in the treatment of psoriasis vulgaris and psoriatic arthritis.

PSS7

KNOWLEDGE AND PERCEPTION OF MEDICAL AND PHARMACY STUDENTS TOWARD THE USAGE OF SUNBLOCK

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OBJECTIVES: To evaluate the knowledge and perception of medical and pharmacy students toward the usage of sunblock as skin protection against ultraviolet (UV). **METHODS:** This cross-sectional study was conducted among the undergraduate final year medical and pharmacy students at the International Islamic University Malaysia (IIUM). Validated questionnaire were used to collect the data. The questionnaires were distributed to 134 students from medicine and 100 pharmacy students. Descriptive and inferential statistics are used whenever appropriate. **RESULTS:** Overall, 161 participants out of a total of 234 completed the questionnaire with 101 medical students (75.4%) and 60 pharmacy students (60.0%). Majority of the respondents were female 64 (63.4%) and 37 (36.6%) were male. The median of knowledge scores of the final year medical students was significantly lower than the final year pharmacy students ($p<0.01$). There is no significant differnce between the knowledge of the female and male students (Mann Whitney U Test value = 0.27, $p<0.01$). This study reported that 24 (39.3 %) of pharmacy students were influenced by the media to use sunblock whereas 35 (34.7%) of medical students had the highest influence from friends to use sunblock. However, this study showed there was no significant difference in the perception of pharmacy and medical studnets $p=0.020$. **CONCLUSIONS:** In conclusion, the knowledge of pharmacy students is significantly higher than the knowledge of medical students had on the usage of sunblock. Both medical and pharmacy students have the same level of perception towards the usage of sunblock.

PSS8

PHARMACOEPIDEMIOLOGY OF CELLULAR/TISSUE DERIVED PRODUCTS FOR THE TREATMENT OF VENOUS LEG ULCERS IN OUTPATIENT CARE SETTINGS

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OBJECTIVES: Venous leg ulcers (VLUs) are a debilitating condition for patients with venous insufficiency. Compression therapy is the standard care for treatment of VLU; however the success rate is approximately 50% at 6 months. Clinical trials with cellular/tissue derived products (CTPs) have shown promising efficacy for the treatment of VLU. The objective was to identify patient and clinical characteristics in the VLU population and examine patterns of CTP utilization. **METHODS:** Retrospective, de-identified electronic medical records from 2007-2013 were extracted from the Intellicure Limited Data Set (I-LDS). The I-LDS extracts records from 96 hospital-based outpatient wound centers. Patient, wound and encounter level characteristics were examined. CTPs of interest included extracellular matrix (ECM), human skin equivalent (HSE), and living skin equivalent (LSE). **RESULTS:** A total of 9,091 patients, 25,734 wounds, and 222,666 encounters for VLU were identified. The majority of patients was male (50.5%), Caucasian (74.1%), and reported Medicare as their primary insurance (53.4%). The average age was 68.9 (SD=14.6) and the average number of physician visits was 17.7 (SD=22.5). The mean wound surface area was 20.1cm^2 (SD=83.4). The overall average wound duration was 5.8 months (SD=26.7). Of the 25,734 wounds, approximately 7.1% received ECM (3.4%), HSE (3.5%), or LSE (0.2%). The average number of applications for ECM was 2.7 (SD=2.8), 0.6 (SD=1.3) for HSE, and 3.1 (SD=3.3) for LSE. Wounds treated with CTPs were, on average, several months older: 12.5, 13.7, and 11.1 months for ECM, HSE, and LSE, respectively. Overall average wound treatment time was 2.9 months (SD=4.8). However, treatment time was substantially longer with CTP utilization with an average time of 9.6, 9.7, and 7.5 months for ECM, HSE, and LSE, respectively. **CONCLUSIONS:** CTP utilization was relatively low within outpatient wound centers. Results from this analysis indicate that health care providers are using CTPs on older, more difficult-to-heal VLUs.

PSS9

THE EPIDEMIOLOGY OF MEDICAL TREATMENT FOR GLAUCOMA AND OCULAR HYPERTENSION IN GERMANY

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OBJECTIVES: The purpose of this study is to review the epidemiology and the treatment paradigm of German glaucoma population and to assess the frequency of switches from monotherapy to second- or third line combination therapy in primary open angle glaucoma (POAG) patients. Glaucoma is the second leading cause of blindness globally. The newly published EGS guidelines state that if the first choice monotherapy is well tolerated and has effective intra ocular pressure (IOP) lowering but has not succeeded in reaching the target pressure, the addition of a second drug should be considered. **METHODS:** German patient databases were searched in the following areas: glaucoma prevalence and incidence studies in German population as well as treatment paradigm in glaucoma patients. **RESULTS:** Our analysis underlines the high number of glaucoma patients in Germany and the relevance of this disease for the German health care system. The study also demonstrates that a considerable number of glaucoma patients do not reach IOP target under monotherapy and have to be treated with a combination therapy. In general, treatment with a combination of agents of different classes is associated with superior IOP lowering efficacy. With an increasing number of available fixed dose combination products, more options become available for combination therapy of glaucoma patients. **CONCLUSIONS:** Glaucoma care needs to be given high priority in public health programs. Especially treatment options for glaucoma patients in need for a combination therapy should be in the focus of health care system decision makers as well as further research in glaucoma clinical trials and clinical care.

SENSORY SYSTEMS DISORDERS – Cost Studies

PSS10

A US HOSPITAL ECONOMIC IMPACT MODEL FOR ORITAVANCIN IN ABSSSI PATIENTS WITH RISK OF MRSA INFECTIONS

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OBJECTIVES: It is estimated that acute bacterial skin and skin structure infections (ABSSSI) account for about 10% of hospital admissions in the US. Analyses of hospital claims indicate 74% of ABSSSI admissions involve empiric treatment with methicillin-resistant *Staphylococcus aureus* (MRSA) active antibiotics. Hospitalization costs could be reduced if moderate-severe ABSSSI patients were treated to a greater extent in the observational unit followed by discharge to outpatient parenteral antibiotic therapy (OPAT). Oritavancin is a novel single-dose regimen, intravenous lipoglycopeptide antibiotic for ABSSSIs caused by gram-positive bacteria, including MRSA. The aim of our analysis was to quantify the economic value of using oritavancin for ABSSSI patients at risk of MRSA from a US hospital perspective. **METHODS:** A decision analytic model based on current clinical practice was developed to estimate the economic value of decreased hospital resources by using oritavancin. Utilization of antibiotics was informed by analysis of the Premier hospital database. Demographic and clinical data were derived from a targeted literature review. ER, observation, laboratory, administration costs were from Medicare National Limitation amounts. Drug costs were 2014 wholesale acquisition costs. To estimate the economic impact of reducing resources using oritavancin we set its price to $0. **RESULTS:** For a hypothetical US hospital treating 1,000 ABSSSI patients eligible for IV MRSA antibiotics/year, the administration of oritavancin in 25.75% of patients facilitates shifting patients to the OPAT setting (441 to 561 patients) with a total annual economic impact of $2,752K. Inpatient and outpatient costs were reduced by $2,543K and $209K, respectively. Inpatient cost savings were derived from a reduction in hospitalizations and lower administration burden drove decreased OPAT costs. **CONCLUSIONS:** Using oritavancin in moderate-severe ABSSSI patients, including those at risk of MRSA, is estimated to deliver an estimated cost reduction of $2,752/patient by shifting patient care to the OPAT setting, and decreasing resource utilization.

PSS12

ECONOMIC IMPACT OF VISUAL IMPAIRMENT: A PILOT STUDY IN SINGAPORE

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OBJECTIVES: To examine the economic impact and independent determinants of visual impairment (VI) in Singapore. **METHODS:** 100 patients with VI associated with the most common eye diseases were recruited from the Singapore National Eye Centre. VI was classified as mild and moderate/severe VI based on the presenting visual acuity (VA) in the better-seeing eye. Medical costs (MC) and loss of productivity (LP) in the patients and their families were estimated based on the center's billing data and self-reported data, respectively. LP was calculated for working patients based on absenteeism due to VI. Linear regression models were used to assess the association between costs and VI, generic (EQ-5D), and vision-specific quality of life (VF-14). **RESULTS:** The median (range) age of participants was 73.0 years old (47.0-92.0). The proportion of male was 48.0% and the median (range) presenting VA was 0.54 (0.30-2.00). The yearly median (range) MC and LP were S$1.53K (S$0.13-S$83.59K) and S$0 (S$0-S$7.62K) per person, respectively. The yearly MC for those with mild VI (S$3.50K) was significantly lower than those with moderate/severe VI (S$5.21K) ($P<0.0001$). The yearly MC in participants reporting full health or better vision function were lower than those not in full health or better vision function (e. g. MC for participants in full health=S$2.96K; MC for participants not in full health=S$5.19K; $P<0.0001$). After adjusting for socio-demographic characteristics, the association between MC and VI, EQ-5D and VF-14 remained the same. LP had a similar association with EQ-5D and VF-14 with or without adjustment; however, LP